

Figure 1:

Human TCR V α -1.5 (V α -8.2) coding sequence

ATGCTCCTGC TGCTCGTCCC AGTGCTCGAG GTGATTTTTA CTCTGGAGG
AACCAGAGCC CAGTCGGTGA CCCAGCTTGA CAGCCACGTC TCTGTCTCTG
AAGGAACCCC GGTGCTGCTG AGGTGCAACT ACTCATCTTC TTATTCACCA
TCTCTCTTCT GGTATGTGCA ACACCCCCAAC AAAGGACTCC AGCTTCTCC
GAAGTACACA TCAGCGGCC CCCTGGTTAA AGGCATCAAC GGTTTTGAGG
CTGAATTAA GAAGAGGTGAA ACCTCCTTCC ACCTGACGAA ACCCTCAGCC
CATATGAGCG ACGGGGCTGA GTACTTCTGT GTTGTGAGTC CTTTTTCAGG
AGGAGGTGCT GACGGGACTCA CCTTTGGCAA AGGGACTCAT CTAATCATCC
AGCCCTATAT CCAGAACCCCT GACCCCTGCCG TGTACCCAGCT GAGAGACTCT
AAATCCAGTG ACAAGTCTGT CTGCCTATTC ACCGATTGG ATTCTCAAAC
AAATGTGTC CAAAGTAAGG ATTCTGATGT GTATATCACAGACAAAAGTG
TGCTAGACAT GAGGTCTATG GACTTCAAGA GCAACAGTGC TGTGGCCTGG
AGCAACAAAT CTGACTTTGC ATGTGCAAC GCCTTCAACA ACAGCATTAT
TCCAGAAGAC ACCTTCTTCC CCAGGCCAGA AAGTTCTGT GATGTCAAGC
TGGTCGAGAA AAGCTTTGAA ACAGATAACGA ACCTAAACTT TCAAAACCTG
TCAGTGATTG GTTCCGAAT CCTCCTCTG AAAGTGGCCG GGTTTAATCT
GCTCATGACG CTGCGGCTGT GGTCCAGCTGA

Human TCR V α -1.5 (V α -8.2) protein sequence

FR1

MLLLVPVLEVIFTLGGTRAQSVTQLDSHVSVSEGTR

CDR1 FR2

PVLLRCNYSSSYSPSSLFWYVQHPNKGQLQLLKYT

CDR2 FR3

SAATLVKGINGFEAEEFKKSETSFHILTAKPSAHMSDA

CDR3

AEYFCVVSPFSGGGADGLT

$\frac{N}{6}$

constant

FGKGTH LIIQPYIQNP DPAYQLRDSKSSDKSVCLF
 TDFDSQTNV S QSKDSDVYIT DKTIVLDMRSM
 DFKSNSAVAWSNKSDFACAN AFNNNSIIPED
 TFFFPSPESSCDVKLVEKFETIDTNLNFQNL SVIGFRIL
 LL KVAGFNLLMT LRLWSS

Figure 3:

Human TCR V β -2.1 (V β -20.1) coding sequence

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ATGCTGCTGC TTCTGCTGCT TCTGGGCCA GGCTCCGGGC TTGGTGCTGT
CGTCTCAA CATCCGAGCT GGGTTATCTG TAAGAGTGG ACCTCTGTGA
AGATCGAGTG CCGTTCCCTG GACTTCAGG CCACAACTAT GTTTGGTAT
CGTCAGTCCC CGAAACAGAG TCTCATGCTG ATGGCAACTT CCAATGAGGG
CTCCAAGGCC ACATACGAGC AAGGCGTCGA GAAGGACAAG TTTCTCATCA
ACCATGCCAG CCTGACCTTG TCCACTCTGA CAGTGACCAAG TGCCCATTCT
GAAGACAGCA GCTTCTACAT CTGCAGTGCT AGAGATGGGG GGAGGGGTTTC
GGAGACCCAG TACTTCGGGC CAGGCACGGG GCTCCTGGT CTCGAGGGAC
TGAAAACGT GTTCCCCACCC GAGGTCGCTG TGTGGAGGCC ATCAGAACGCA
GAGATCTCCC ACACCCAAA GGCCACACTG GTGTGGCTGG CCACAGGCTT
CTACCCCGAC CACGTGGAGC TGAGCTGGTG GGTGAATGGG AAGGAGGGTGC
ACAGTGGGT CAGCACAGAC CCCGAGCCCC TCAAGGAGCA GCCCGCCCTC
AATGACTCCA GATACTGCCT GAGCAGCCGC CTGAGGGTCT CGGCCACCTT
CTGGCAGAAC CCCCGAACC ACTTCCGCTG TCAAGTCCAG TTCTACGGGC
TCTGGAGAA TGACGGAGTGG ACCCAGGATA GGGCAAACC TGTCAACCCAG
ATCGTCAGCG CCGAGGCCTG GGGTAGAGCA GACTGTGGCT TCACCTCCGA
GTCTTACCAAGGGTCC TGTCTGCCAC CATCCTCTAT GAGATCTTGC
TAGGGAAGGC CACCTTGTAT GCCGTGGTGG TCAGTGGCCCT CGTGCTGATG
GCCATGGTCA AGAGAAAGGA TTCCAGGGC TAG

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Figure 4

Human TCR V β -2.1 (V β -20.1) protein sequence

FR1
MLLMLLLGPGSGGLGAVVSQHPSWWICKSGTSVKIECR

CDR1
SLDFQATTMFWYRQFPKQQLMILMATSNEGSKATYEQ

FR2
CDR2
GVEKDKFLINHASLTLSTVAHPPEDSSFYICSARD

FR3
CDR3
GGEG

constant
SETQYFGPGTRLLVLEDLKNVFPPEVAVFEPSEAEIISHTQ
KATLVCLATGFYYPDHVELSSWVNGKEVHSGVSTDPQPL
KEQPALNDSRYCLSSRLRVSATFWQNPRNHFRCCQVQFY
GLSENDEWTQDRAKPVTQIVSAEAWGRADCFTSESYQ
QGVLSATILYEILLGKATLYAVLVSALVLMAMVKRKDS

$\frac{5}{16}$
RG

Human TCR V α -1.5 (V α -8.2) protein sequence

FR1
MILLLVPVLEVIFTLGGGTRAQSVTQLDSHVSVSEGT

CDR1 FR2
PVLLRCNYSSSYSPSSLFWYVQHPNKGLQLLLKYT

CDR2 FR3
SAATLVKGINGFEAEFIKKSETISFHILTAKPSAHMSDA

V α 8.2 CDR3 J45
AEYFCVVSPFSGGGADGGLTFGKGTHLIIQP

$\frac{5}{6}$

constant
YIQNP DPAVYQLRDSKSSDKSVCLF TDFDSQTNVVS
QSKDSDVYT DKTVLDMRSM
DFKSNSAVAWSNKSDFACAN AFNNNSIPIED
TFFPSPESSCDVKLVEKSFETDTNLNEQNLSVIGFRIL
LL KVAGFNLLMT LRLWSS

Human TCR V β -2.1 (V β -20.1) protein sequence

MLLL**L**LGPGSG**G**LG**A**V**V**SQHIPS**W**W**I**C**K****S****G**T**S**VIKIECR
CDR1 FR1
SLDFQATT**M**F**W**Y**R**Q**P**K**Q**SLM**M**AT**S**N**E**G**S**K**A**T**Y****E****Q**
CDR2 FR2
G**V****E****K****D****K****F****L****I****N****H****A****S****L****T****L****T****V****V****T****S**AH**P****E****D****S****S**F**Y****I****C****S****A****R****D**
CDR3 FR3
G**G****E****G****S****E****T****Q****Y****F****G****P****G****T****R****L****L****V****L**
Constant 2 J2.5
EDLKNVFPPPEVAVFEPSEAEIISHTQKATLVC~~LA~~TGFYFPDH
VELSWWVNGKEVHSGVSTDPQPLKEQPALNDSRYCLSS
RLRVVSATFWQNPRNHFRCQVQFYGLSENDEW~~T~~QDRAKP
VTQIVSAEAWGRADCGFTISESYQQGVLSATILYEILLGK
ATLYAVLV SALVLMAMVLRKDKDSRG

Figure 7

TCR-retroviral constructs

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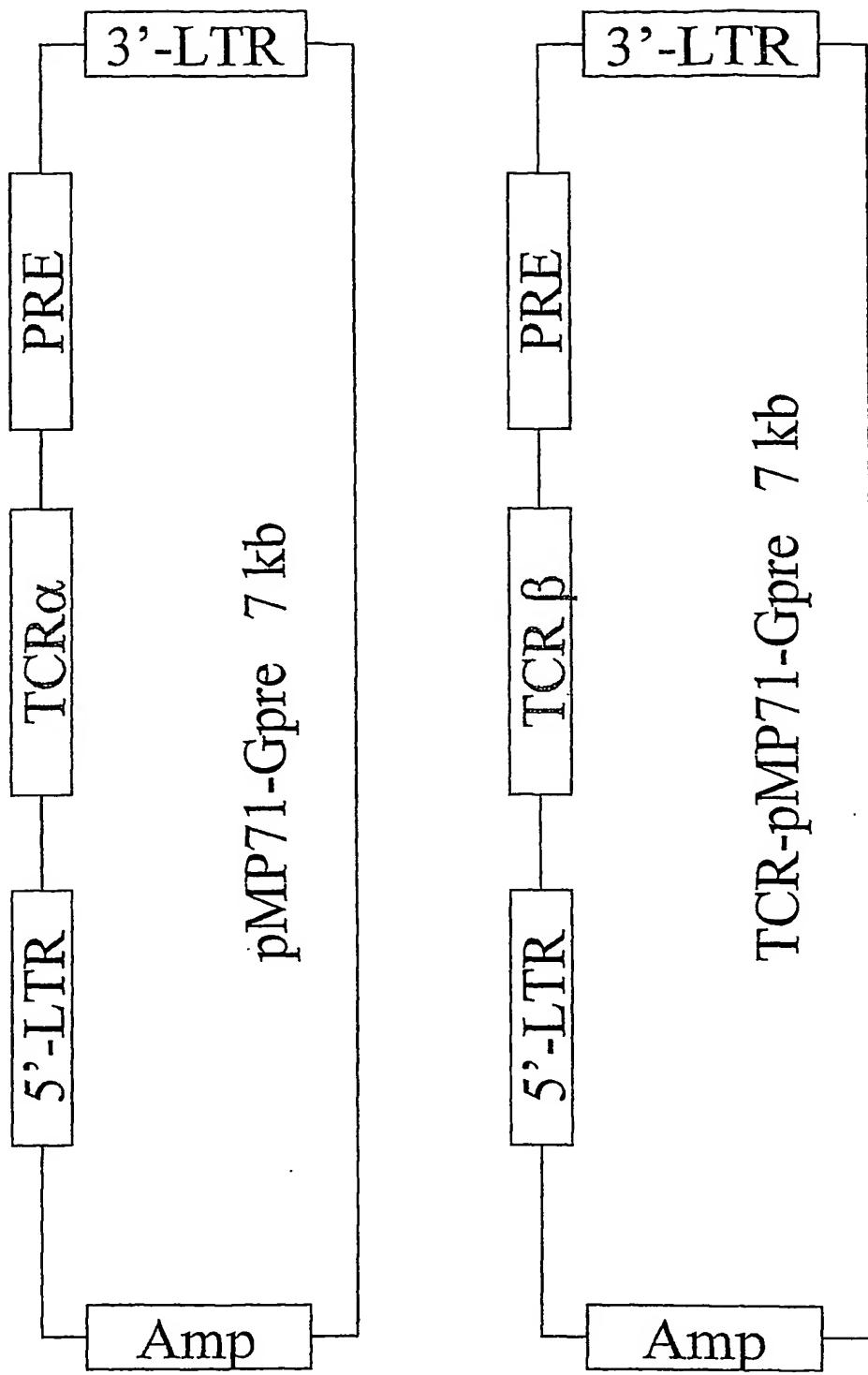


Figure 8

TCR Expression in Human
PBM C after transduction

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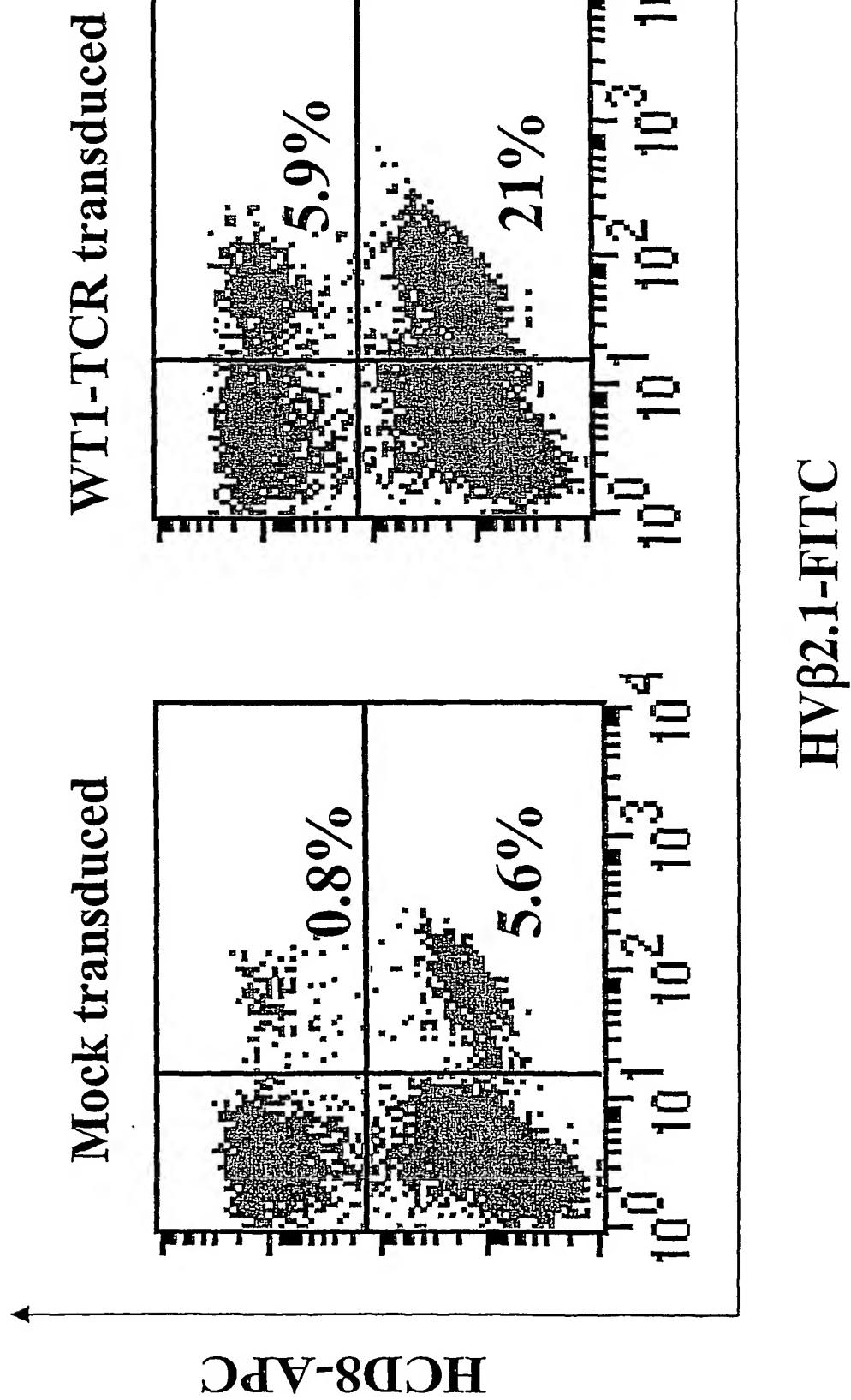
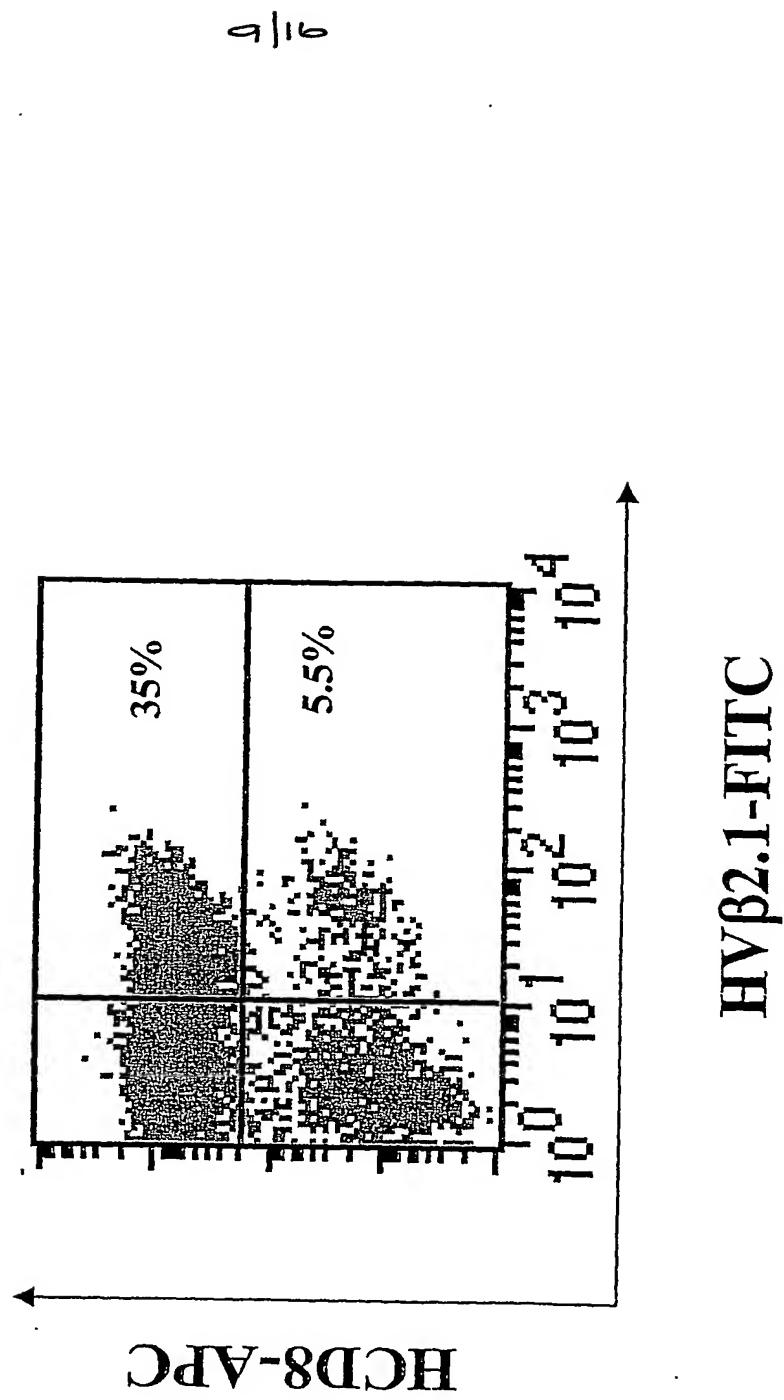


Figure 9

Increase of CD8⁺-Vlb2.1⁺ T Cells
after antigen stimulation

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TCR specific for pWT126 transduced PBMC

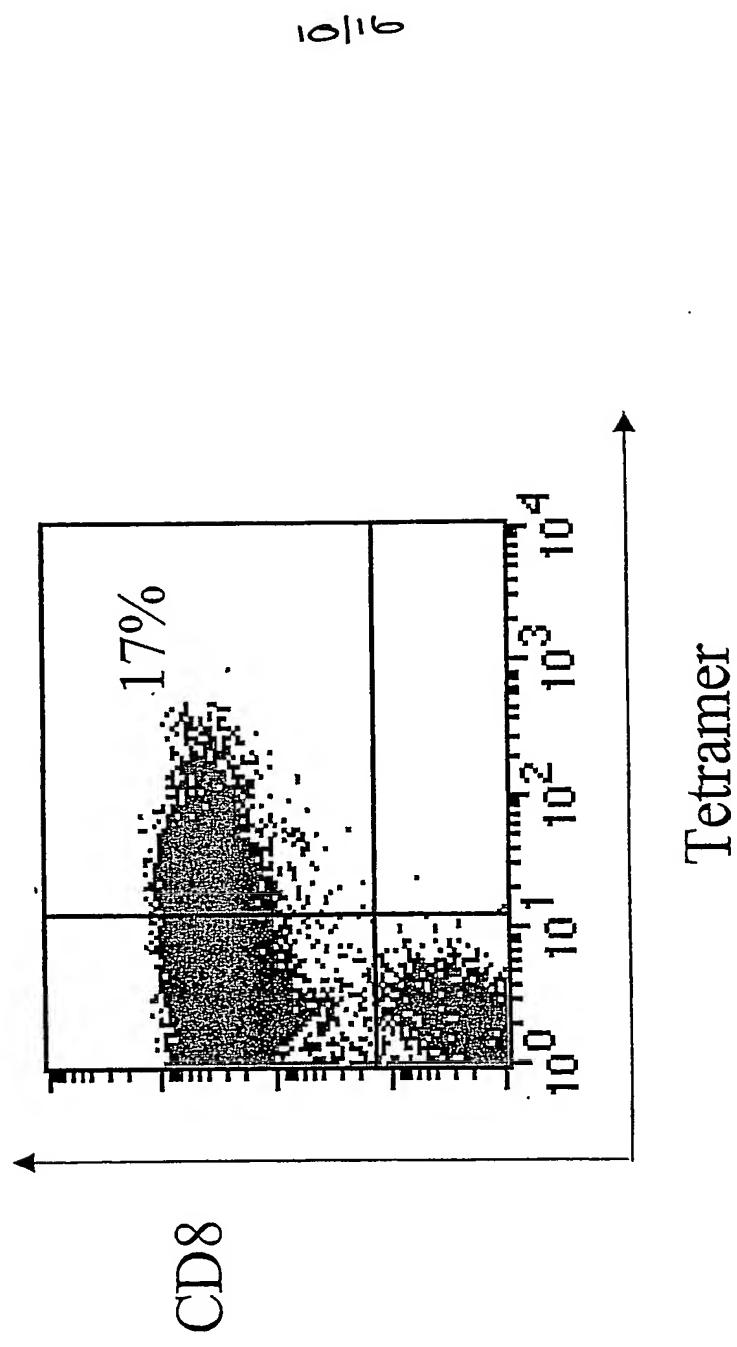


Figure 11

TCR transduced bulk T cells show pWT126-specific killing activity

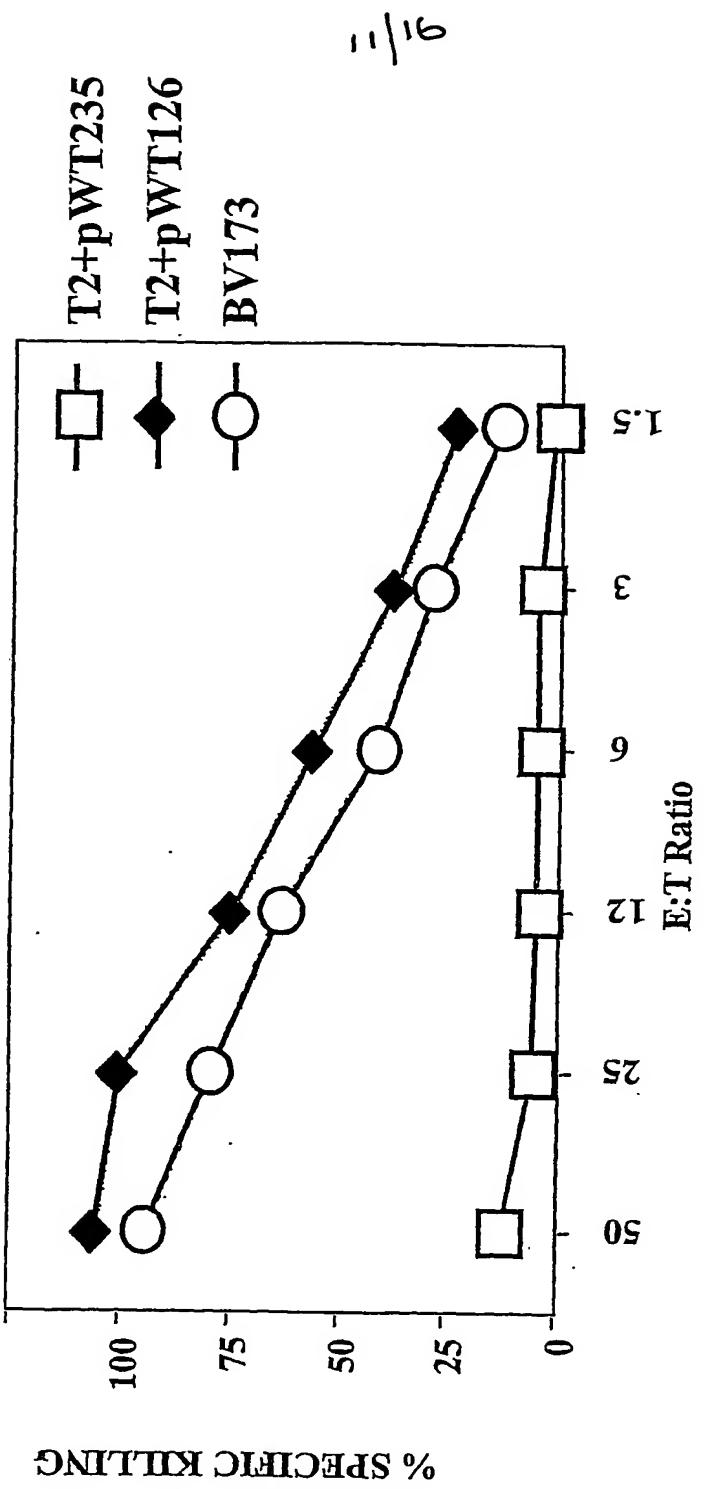
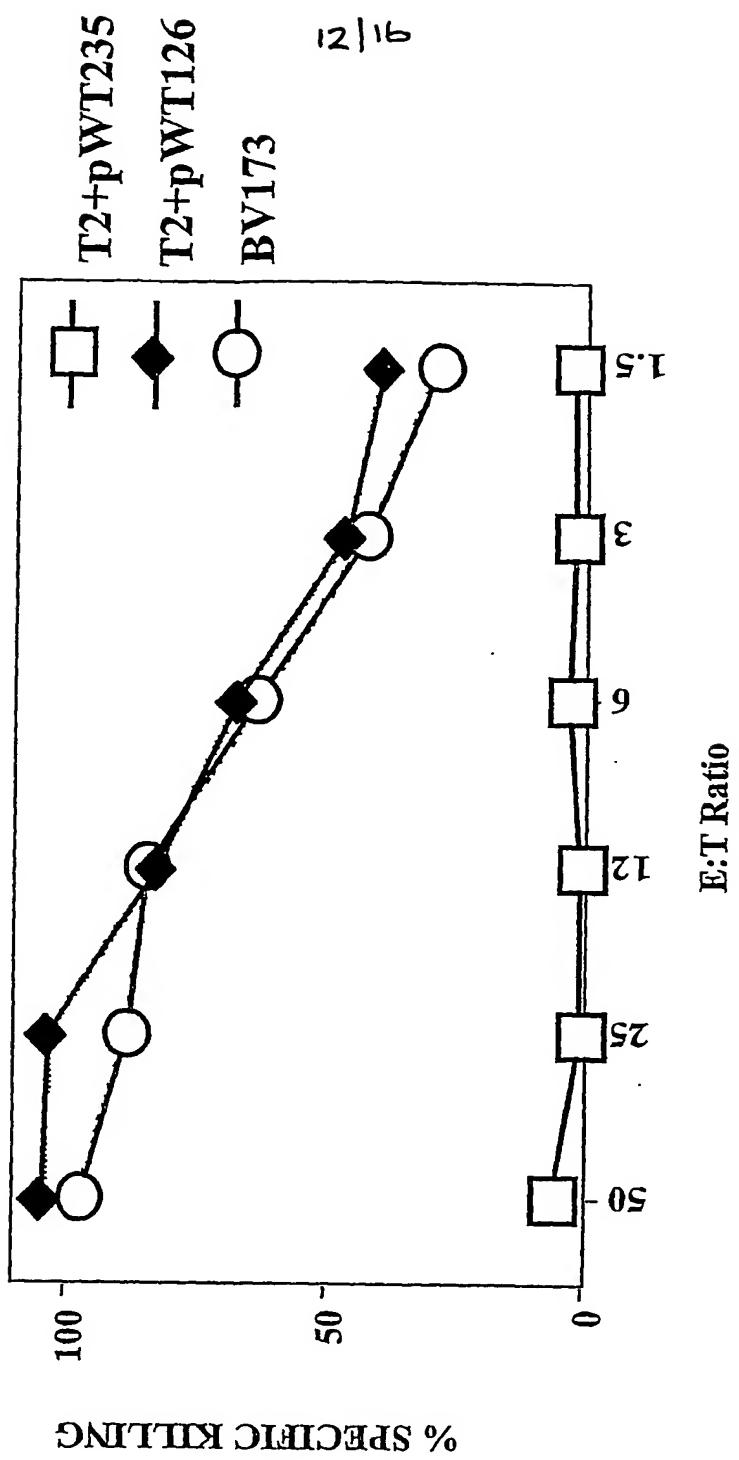
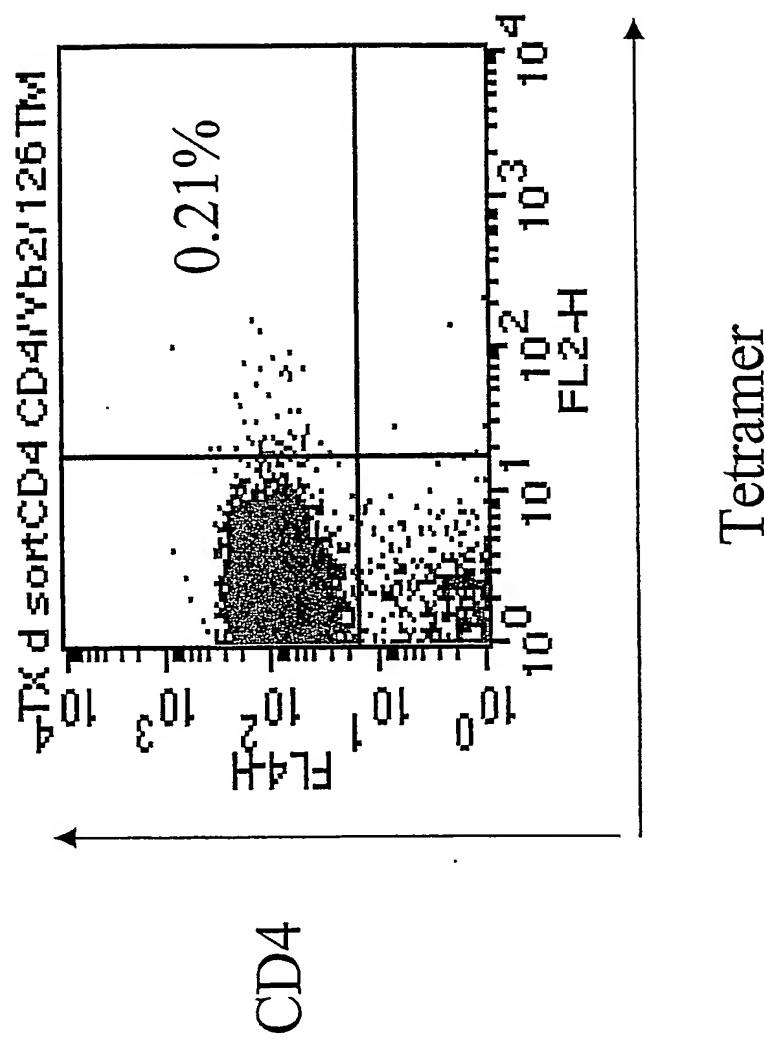


Figure 12

TCR transduced CD8+ T cells show pWT126-specific killing activity



TCR specific for pWT126 transduced
PBMC sorted CD4



TCR transduced CD4+ T cells show pWT126-specific killing activity

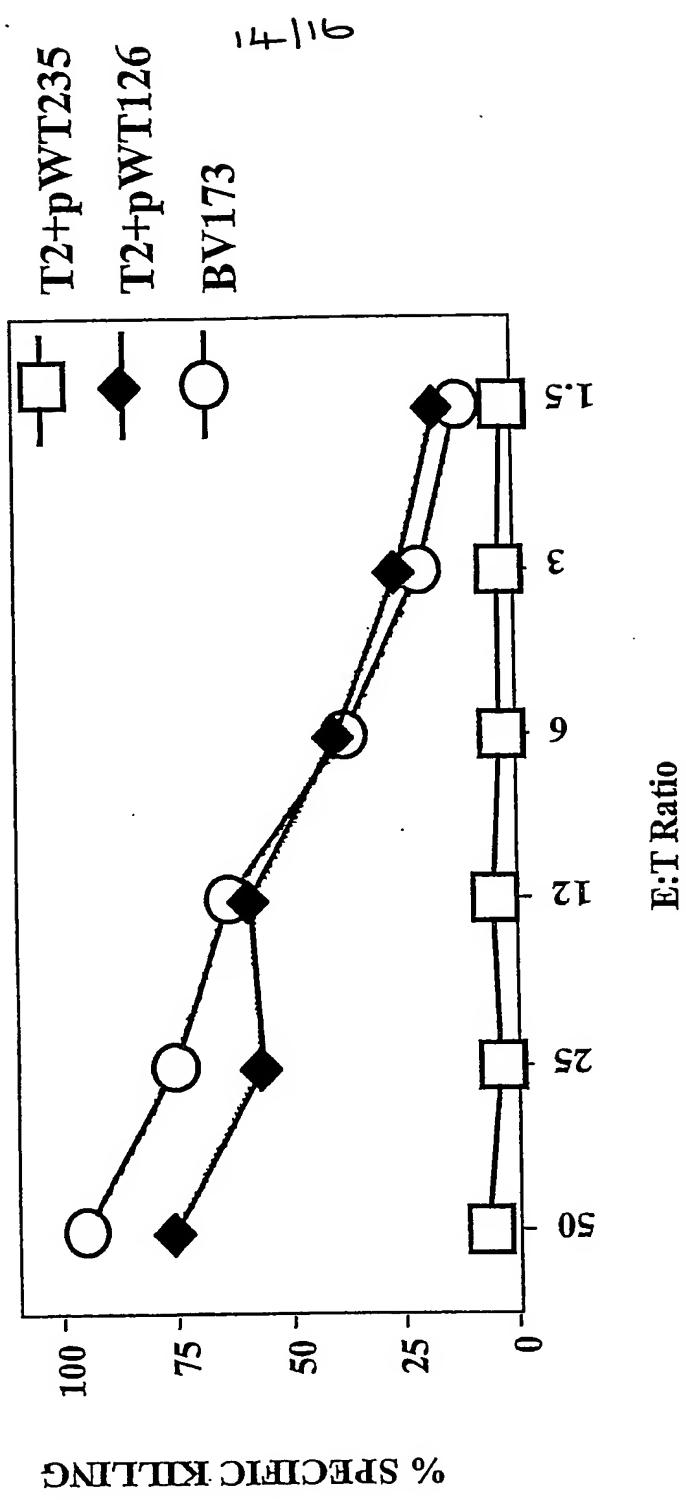
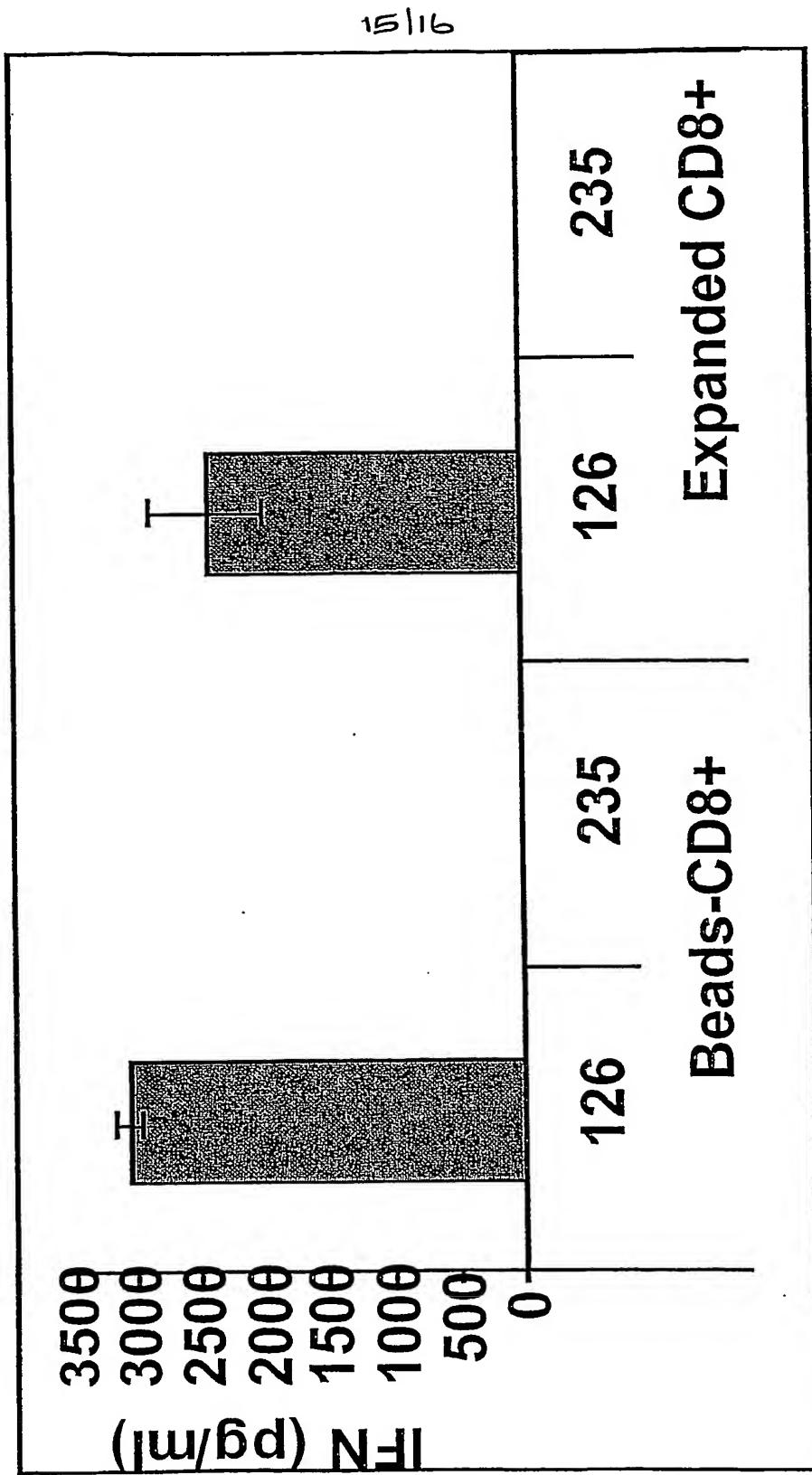


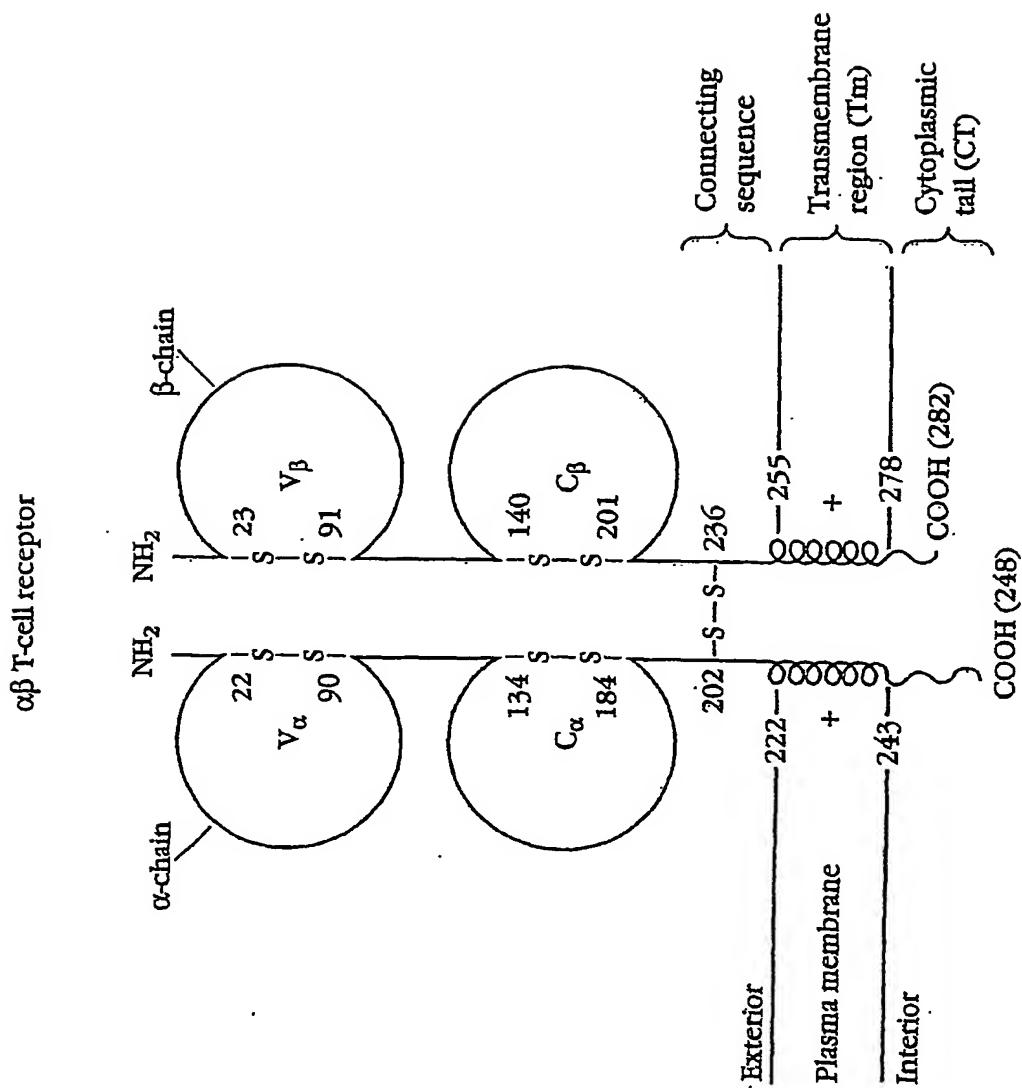
Figure 15

TCR transduced CD8+ T cells show pW_T126-specific IFN- γ production



After 20 hrs incubation

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Figure 16



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